

Curriculum Vitae (C.V.)

Last Update: August 2023

BIOGRAPHY:



Reza Beiranvand (SM'08–M'12) received the M.Sc. and Ph.D. degrees in Electrical Engineering (Electronics) from Sharif University of Technology, Tehran, Iran, in 1999 and 2010, respectively.

From 2010 to 2012, he was a Postdoctoral Research Fellow with the Electrical Engineering College, Sharif University of Technology, Tehran, Iran. During his Postdoctoral research program, he works on the power unit of a small class university LEO cubic satellite including: estimating the energy, optimizing PV panels, Battery Charger, Power Distribution, and power monitoring units. Also, he works on a 3-axis circular Helmholtz coils system and a 3-axis magnetorquers system to optimize a small class university cubic satellite attitude determination and control system (ADCS) algorithms.

From 1999 to 2007, he was an engineer at R&D centers of PARS-Electric and RADIO SHAHAB MFGs, Tehran, Iran, where he was engaged in designing the CRT, LCD, and LED TVs based on the ST, LT, Fairchild, and NXP semiconductor devices, and also on high power

factor resonant converters for ballasts and LED applications.

Since 2012, he has been with the Faculty of Electrical and Computer Engineering, Tarbiat Modares University, Tehran, Iran. He is currently Associate Professor of Electrical & Computer Engineering Department and Head of the Power Electronics Converters (PEC) Research Lab, Tarbiat Modares University, Tehran, Iran. He is between the Top 2 Percent Scientists of the World, based on the Stanford University; Stanford, CA, USA released lists, 2020-2023. In addition, he was one of the 2016 IEEE outstanding reviewers, the second rank of the Iran Power Electronics Society annual competition in 2015, the IEEE Consultant during 2017-2019, and Head of the Power Group during 2018-2020 in Tarbiat Modares University, Tehran, Iran.

His current research interests include modeling and control of the power electronics converters, soft switching techniques, resonant converters and resonant SCCs, SMPS, Capacitive-Coupling Power Transfer (CPT) and Inductive Power Transfer (IPT) techniques, PV-based renewable energy systems, ultrasonic welding and cleaning, design and analysis of the electromagnetic devices including: transformers, Inductors, homogeneous magnetic field generators, and magnetorquers.

CORRESPONDING ADDRESS:

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<https://scholar.google.com/citations?user=xREPOI0AAAAJ&hl=en&oi=ao>

HONORS & AWARDS:

No.	Title	Year
1	Among the Top Two Percent Scientists of the World, Stanford University Released List	2020-2023
2	Among the IEEE Transactions on Power Electronics 10 Top Outstanding Reviewers	2016
3	The Second Rank of the Iran Power Electronics Society Annual Competition	2015

PROFESSIONAL EXPERIENCES:

No.	Title	Year
1	Associate Professor of Power Electronics, Tarbiat Modares University	Since 2020
2	Head of the Power Electronics Converters Research Lab., Tarbiat Modares University	Since 2017
3	Head of the Power Group, Tarbiat Modares University	2018-2020
4	IEEE Consultant, Tarbiat Modares University	2017-2019
5	Guest Editor of Modares Journal of Electrical Engineering (MJEE)	2015-2017
6	Assistant Professor of Power Electronics, Tarbiat Modares University	2012-2020
7	Postdoctoral, Sharif University of Technology	2010-2012
8	Consultant of the Head of the R&D Department, Radio Shahab <i>Manufacturing Co.</i>	2005-2009
9	Researcher of the R&D Department, <i>Pars Electric Manufacturing Co.</i>	2000-2004

SCIENTIFIC SOCIETIES:

- IEEE Industrial Electronics Society
- IEEE Power Electronics Society
- IEEE Magnetics Society

REVIEWER OF SOME INTERNATIONAL JOURNALS:

- American Institute of Physics (AIP),
- Advances in Electrical Engineering, Electronics and Energy,
- AUT Journal of Electrical Engineering,
- Cybernetics and Systems,
- Energy Reports,
- Heliyon,

- IEEE Access,
- IEEE Transactions on Energy Conversion,
- IEEE Transactions on Industrial Electronics,
- IEEE Transactions on Magnetics,
- IEEE Transactions on Plasma Science,
- IEEE Transactions on Power Electronics,
- IET Power Electronics,
- Iranian Journal of Electrical and Computer Engineering,
- Iranian Journal of Marine Technology,
- International Journal of Electrical Power Energy Systems,
- International Journal of Electronics and Communications,
- International Transactions on Electrical Energy Systems,
- Journal of Autonomous Intelligence,
- Journal of Energy Storage,
- Journal of Power Electronics,
- Modares Journal of Electrical Engineering,
- Review of Scientific Instruments, Electronic Industries, and
- Tabriz Journal of Electrical Engineering.

EDUCATION:

2010 – 2012: Sharif University of Technology, Tehran-Iran			
Postdoctoral	Research Topics:	1)	Design and Implementation of the Power Unit of a Small Class University LEO Cubic Satellite Including: Estimating the Energy, Optimizing PV Panels, Battery Charger, Power Distribution, and Power Monitoring Units
		2)	Design and Implementation of a 3-Axis Circular Helmholtz Coils and a 3-Axis Magnetorquers Systems and Their Drivers for Optimizing a Small Class University LEO Cubic Satellite Attitude Determination and Control System (ADCS) Algorithms
2004 – 2010: Sharif University of Technology, Tehran-Iran			
Ph.D.	Dissertation:		Design and Implementation of an Ion Implanter Ion-Gun Filament and Arc Power Supplies Based on the LLC Resonant Converter
1997 – 1999: Sharif University of Technology, Tehran-Iran			
MSc.	Thesis:		Design and Implementing of a 1 kW, 48 V to 220 V Sinusoidal 50 Hz Inverter by Using UPWM and SPWM Techniques

SOME PRACTICAL AND INDUSTRIAL EXPERIENCES:

No.	Title
1	Design and Implementation of a Small Class University LEO Cubic Satellite Power Unit Including: Estimating the Energy, Optimizing PV Panels, Battery Charger, Power Distribution, and Power Monitoring Units

No.	Title
2	Design and Implementation of a Magnified Earth Magnetic Field Simulator by Using a 3-Axis Circular Helmholtz Coils System for Optimizing a Small Class University LEO Cubic Satellite Attitude Determination and Control System (ADCS) Algorithms
3	Design and Implementation of a 3-Axis Circular Helmholtz Coils System Driver
4	Design and Implementation of a 3-Axis Magnetorquer System and Its Driver for Controlling a Small Class University LEO Cubic Satellite
5	Design and Implementation of the Hardware of the CRT, LCD, and LED Based TVs by Using the ST, LT, Fairchild, and NXP Semiconductor Devices
6	Design and Implementation of a High Power Factor Resonant Converter for CCFL Applications
7	Design and Implementation of a Multi-Output High Power Factor Resonant Converter for Driving CCFL Applications
8	Design and Implementation of an LED Driver for Light Applications
9	A Comprehensive Study of the Basic Structure and Operations Principles of the STM Microscopes
10	A Comprehensive Study of the Basic Structure and Operations Principles of the Ion Implanter Systems
11	Design and Implementation of a Multi-Output Quasi-Resonant Flyback Converter for 14" CRT TVs for Using 12 V and 24 V Batteries for Bus Applications
12	Design and Implementation of a High Efficiency Class D 175+175 W Stereo Audio Power Amplifier
13	Design and Implementation of a CRT-Based Monitor Settings Production Line Power Supply
14	Design and Implementation of an Extra High Extension Multi-Output (28 kV 1mA, 2-10 kV, and 0.1-1 kV) Resonant Flyback Converter
15	Design and Implementation of A Switched-Mode Flyback Transformer for TV Applications
16	Design and Implementation of A Variable 20-200 A DC Current Source for the Ion-Source of an Implanter
17	Design and Implementation of A Variable 50-150 V DC Voltage Source for the Arc Section of an Implanter
18	Design and Implementation of A 1 kW Universal 110-220 V AC to 400 V DC PFC Converter

SOME TYPICAL RESEARCH INTERESTS:

No.	Title
1	Soft Switching Techniques, Resonant Converters, and Switched-Capacitor Converters (SCCs)

No.	Title
2	Novel Power Electronics Converters: (AC/AC, AC/DC, DC/DC, DC/AC) Topology, Modeling, and Their Different Control Approaches
3	Battery Chargers and Equalizers Circuits
4	Capacitive-Coupling Power Transfer (CPT) and Inductive Power Transfer (IPT) Techniques
5	Switched-Mode Power Supplies (SMPS)
6	High-Voltage Pulsed Power Supplies
7	PV-Based Renewable Energy Systems
8	Design and Analysis of the Electromagnetic Devices Including: Transformers, Inductors, Homogeneous Magnetic Field Generators, and Magnetorquers
9	Ultrasonic Cleaning and Welding Techniques

ACADEMIC EXPERIENCES:

1) COURSES TAUGHT:

No.	Title	Level
1	Switched-Mode Power Supplies (SMPS), Chargers, and Their Applications Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University	PhD
2	Resonant Converters and Soft Switching Techniques Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University	MSc & PhD
3	Modeling and Control of the Power Electronics Converters Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University	MSc & PhD
4	Quasi-Resonant Converters and Resonant Switched-Capacitor Converters Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University	PhD
5	Novel Power Electronics Converters and Their Control Approaches Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University	PhD

2) PATENTS:

2-a) Iran Patents

No.	Title	Year
5	High Step-Up DC/DC Converter with Soft-Switching Operation (Iran Patent: No. 108259) K. Choobdari Omran and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University	2023
4	A Multi-Phase Transformerless High-Power High-Step Up DC-DC Converter with Soft Switching Capability (Iran Patent: No. 107742) S. Hasani Sangani and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University	
3	Expandable Interleaved DC-DC LLC Resonant Converter (Iran Patent: No. 107168) D. Amani and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University	2022
2	Step-Up Two-Phase Resonant Switched Capacitor Converter (Iran Patent: No. 3011692) R. Rezaii, S. M. Mousavi, R. Beiranvand and A. Yazdian Varjani Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University	2016
1	Long-life High power Factor LED Driver Circuit without Electrolytic Capacitor (Iran Patent: No. 3001682) R. Beiranvand , M. Ghasemi, and AR. Golahmar Zavareh Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University	2015

3) PUBLICATIONS:

3-a) Books

No.	Title	Year

3-b) Publications in International Refereed Journals:

No.	Title	Year
1	Designing an Adjustable Wide Range Regulated Current Source R. Beiranvand , B Rashidian, MR Zolghadri, and SMH Alavi Power Electronics, IEEE Transactions on 25 (1), 197-208	2010
2	Optimizing the Normalized Dead-Time and Maximum Switching Frequency of a Wide-Adjustable-Range LLC Resonant Converter R. Beiranvand , B Rashidian, MR Zolghadri, and SMH Alavi Power Electronics, IEEE Transactions on 26 (2), 462-472	2011

No.	Title	Year
3	Using LLC Resonant Converter for Designing Wide-Range Voltage Source R. Beiranvand , B Rashidian, MR Zolghadri, and SMH Alavi Industrial Electronics, IEEE Transactions on 58 (5), 1746-1756	
4	Optimizing the LLC–LC Resonant Converter Topology for Wide-Output-Voltage and Wide-Output-Load Applications R. Beiranvand , MR Zolghadri, B Rashidian, and SMH Alavi Power Electronics, IEEE Transactions on 26 (11), 3192-3204	
5	A design Procedure for Optimizing the LLC Resonant Converter as a Wide Output Range Voltage Source R. Beiranvand , B Rashidian, MR Zolghadri, and SMH Alavi Power Electronics, IEEE Transactions on 27 (8), 3749-3763	2012
6	Analyzing the Uniformity of the Generated Magnetic Field by a Practical One-Dimensional Helmholtz Coils System R. Beiranvand Review of Scientific Instruments 84 (7), 075109-1- 075109-12	2013
7	Novel Zero-Voltage-Switching Bridgeless PFC Converter R Haghi, MR Zolghadri, and R. Beiranvand Journal of Power Electronics 13 (1), 40-50, 2013	
8	Magnetic Field Uniformity of the Practical Tri-Axial Helmholtz Coils Systems R. Beiranvand Review of Scientific Instruments 85 (5), 055115-1-055115-10	
9	New Strategy of Grid Connected Photovoltaic System Using Module Integrated Converters with B4 Inverter to Overcome Partial Shading Effect R. Rezaii, M. A. Abolhasani, A. Yazdian Varjani, and R. Beiranvand International Journal of Smart Electrical Engineering 3 (3), 149-155, 2014	2014
10	Analysis of a Switched-Capacitor Converter Above its Resonant Frequency to Overcome Voltage Regulation Issue of Resonant SCCs R. Beiranvand Industrial Electronics, IEEE Transactions on , 63 (9), 5315-5325, 2016 DOI: 10.1109/TIE.2016.2561270	
11	Analyzing a Resonant Switched-Capacitor Converter for Improving Lithium-Ion Battery Cells Balancing Speed S Goodarzi, R. Beiranvand , and M Mohamadian Modares Journal of Electrical Engineering 14 (1), 48-57, 2016	2016
12	A New Family of Multi-Input Converters Based on Three Switches Leg M Azizi, M. Mohamadian, and R. Beiranvand Industrial Electronics, IEEE Transactions on , 63 (11), 6812 – 6822, 2016	
13	Single-Stage AC Module with Series Power Decoupling Capability for Connecting PV to a Single-Phase Power Grid M. Zare JamalAbadi , M. Mohamadian, and R. Beiranvand IET Power Electronics , DOI: 10.1049/iet-pel.2016.0349 , 2016	

No.	Title	Year
14	<p>A Single-Phase Grid-Connected Photovoltaic Inverter Based on a Three-Switch Three-Port Flyback with Series Power Decoupling Circuit M. Zare JamalAbadi, M. Mohamadian, and R. Beiranvand Industrial Electronics, IEEE Transactions on, 63 (9)_DOI: 10.1109/TIE.2016.2620100</p>	
15	<p>Optimal Utilization of the Delta Conversion UPS S. M. R. Movahed, M. Mohamadian, A. Yazdian Varjani, and R. Beiranvand Modares Journal of Electrical Engineering 14 (4), 40-51 2017</p>	
16	<p>Regulating the Output Voltage of the Resonant Switched-Capacitor Converters below Their Resonant Frequencies R. Beiranvand Industrial Electronics, IEEE Transactions on, 64 (7), 5236 -5249, 2017 DOI: 10.1109/TIE.2017.2677326</p>	2017
17	<p>Effects of the Winding Cross-Section Shape on the Magnetic Field Uniformity of the High Field Circular Helmholtz Coil Systems R. Beiranvand Industrial Electronics, IEEE Transactions on, 24 (9), 7120 - 7131, 2017 DOI: 10.1109/TIE.2017.2686302</p>	
18	<p>Generalized Step-Down Switched-Capacitor Converter under ZCS for Photovoltaic Applications M. Mousavi, Y. Sangsefidi, A. Mehrizi-Sani, and R. Beiranvand IEEE Transactions on Energy Conversion 33 (3), 1321-1329</p>	2018
19	<p>Design and Implementation of a Transformer-Less Voltage Equalizer for Using in Series Connected Lithium-Ion Batteries Packs (in Persian) S Ghasemzade, R Beiranvand, and A. Yazdian Varjani Electronic Industries 11 (100788), 111-122</p>	2020
20	<p>Analysis of a Switched-Capacitor Converter with Output Voltage Regulation and Soft Switching Capabilities (in Persian) R. Beiranvand Tabriz Journal of Electrical Engineering, 50 (2), 587-604</p>	
21	<p>An Integrated High Power Self-Equalized Battery Charger Using a Voltage Multiplier and Phase-Shifted Full-Bridge DC-DC Converter for Lithium-Ion Batteries M. Feizi, R. Beiranvand, and M. Daneshfar International Journal of Industrial Electronics, Control and Optimization, 4, no. 2: 141-155.</p>	
22	<p>Design and Simulation of an Improved Phase-Shifted Full-Bridge DC-DC Converter with Lower RMS Current and Voltage Stresses M. Feizi, R. Beiranvand, and M. Daneshfar Iranian Journal of Marine Technology, pp. 122-134, Volume 8 , Issue 24, Summer</p>	2021
23	<p>A High Power High-Frequency Self-Balanced Battery Charger for Lithium-Ion Batteries Energy Storage Systems M. Feizi and R. Beiranvand Journal of Energy Storage, 41, 102886, pp. 1-12</p>	
24	<p>A High Step-Up Interleaved Current-Fed Resonant Converter for High-Voltage Applications D Amani, R Beiranvand, M Zolghadri, F Blaabjerg</p>	2022

No.	Title	Year
	IEEE Access 10, 105387-105403	
25	A Quasi Z Source Four Switch Three Phase Inverter with Null Vector Capability R. Haghi, R. Beiranvand , and M. Shahbazi Industrial Electronics, IEEE Transactions on , Volume: 70, Issue: 6, pp. 5421 - 5432	
26	A Family of Interleaved High Step-Up DC-DC Converters by Integrating a Voltage Multiplier and an Active Clamp Circuits R. Beiranvand and S. H. Sangani Power Electronics, IEEE Transactions on , 37 (7), 8001-8014	
27	An Extendable Interleaved Quasi Z-Source High Step-up DC-DC Converter A. Nafari and R. Beiranvand Power Electronics, IEEE Transactions on , 38 (4), 5065-5076	
28	A Single DC Source Gradient Driver Circuit with Boosting Output Capability for MRI Applications Amirabbas Naghipour-Shahrbabaki and R. Beiranvand Industrial Electronics, IEEE Transactions on , 71 (1), 138-149, 2024 DOI: 10.1109/TIE.2023.3245181	
29	A High Step-Up Interleaved LLC Resonant Converter by Using a Center-Tapped Transformer D Amani, R Beiranvand , MR Zolghadri, K Abbaszadeh Iranian journal of Marine technology , 10 (1), 120-135	
30	A Direct AC-AC Switched-Capacitor Converter with Input-Series Output-Parallel and In-Phase/Out-of-Phase Capabilities Seyed Mohsen Mortazavi and R. Beiranvand Power Electronics, IEEE Transactions on , (Early Access) DOI: 10.1109/TPEL.2023.3254543	
31	A Bidirectional Direct AC-AC Resonant SCC Seyed Mohsen Mortazavi and R. Beiranvand Industrial Electronics, IEEE Transactions on , (Early Access) DOI: 10.1109/TIE.2023.3262887	2023
32	A High Step-Up Resonant Converter Based on Current-Fed Voltage Multiplier Technique Koosha Choobdari Omran and R. Beiranvand Industrial Electronics, IEEE Transactions on , (Early Access) DOI: 10.1109/TIE.2023.3283715	
	Under Review Papers	
33	A Comprehensive Review of Battery and Super-Capacitor Cells Voltage-Equalizer Circuits Yasin Izadi and R Beiranvand Power Electronics, IEEE Transactions on , (Under Review: 2nd Revision)	
34	A Quasi-Interleaved DC-DC Converter with High Voltage Gain Based on the Z-Source Structure (in Persian) Sakina Bakhshi and R. Beiranvand	

No.	Title	Year
	Iranian journal of Marine technology (Under Review)	
35	Introducing an Active Network Based Coupled-Inductor Step-up Converter with Soft Switching Feature by Using Active Clamp and Voltage Multiplier Circuits (in Persian) M Zeynalhosseyni, R Beiranvand, and D Amani, Electronic Industries (Under Review)	
36	Analysis of a Step-Up DC-DC Resonant Switched Capacitor Converter under the ZVS Condition A. Salehian, R. Beiranvand, S. S. Hashemi, and A. Yazdian Power Electronics, IEEE Transactions on (Under Review)	
37	Analysis of Some Buck-Boost Based Ultra-High Step-up DC-DC Converters in Different Operation Modes S. Hasani, SM. Seyyedhosseini, and R. Beiranvand IEEE Journal of Emerging and Selected Topics in Power Electronics, (Under Review)	
38	A Comprehensive Review of LLC Resonant Converters: Configurations, Operation Principles, Analysis, Control, and Applications Jasem Shahsevani and R. Beiranvand Power Electronics, IEEE Transactions on, (It is ready to submit)	
39	A High Step-Up Soft-Switched Converter Based on Coupled Inductor and Current-Fed Voltage Multiplier Koosha Choobdari Omran and R. Beiranvand Industrial Electronics, IEEE Transactions on, (It is ready to submit)	
40		
		2024

3-c) Publications in International Refereed Conferences

No.	Title	Year
64		
63	A High Step Up Quasi Resonant DC-DC Converter Based on the Hybrid Voltage Multiplier with Soft Switching and High Voltage Gain Koosha Choobdari Omran and R. Beiranvand 31 th International Conference on Electrical Engineering (ICEE2023)	2023
62	A Bidirectional Transformerless Resonant Converter for Capacitive Power Transmission for Electric Vehicle and PowerWall Applications	

No.	Title	Year
	<p>Jasem Shahsevani and R. Beiranvand 31th International Conference on Electrical Engineering (ICEE2023)</p>	
61	<p>A Novel Approach for Improving the LLC Resonant Converter Efficiency over Wide Input Voltage and Load Variation Ranges Jasem Shahsevani and R. Beiranvand 31th International Conference on Electrical Engineering (ICEE2023)</p>	
60	<p>A New High Voltage Gain Full Bridge Resonant Switched-Capacitor Converter Sajad AfsharZarandi and R. Beiranvand 31th International Conference on Electrical Engineering (ICEE2023)</p>	
59	<p>A New High Voltage Gain Z-Source Based DC-DC Converter for High-Power DG Applications Sakina Bakhshi and R. Beiranvand 31th International Conference on Electrical Engineering (ICEE2023)</p>	
58	<p>A Multilevel Ac-Ac Converter with Input-series and Output-Parallel as Dynamic Voltage Restorer Seyed Mohsen Mortazavi and R. Beiranvand 31th International Conference on Electrical Engineering (ICEE2023)</p>	
57	<p>New Single Phase Direct AC-AC Converters as a Series Static Dynamic Voltage Stabilizer with the Introduction of Transformer and Transformerless Network Connection Seyed Mohsen Mortazavi and R. Beiranvand 31th International Conference on Electrical Engineering (ICEE2023)</p>	
56	<p>A High-Voltage DC-DC LLC Resonant Converter by Using a Symmetrical Voltage Multiplier Circuit Reza Takarli, Mohammadreza Adib, Abolfazl Vahedi, and R. Beiranvand 2nd International Conference on Electrical Motors and Generators (ICEMG2023)</p>	
55	<p>A Multiphase Voltage Multiplier Circuit with Interleaved Boost Converter AmirHasan Babanezhad and R. Beiranvand 14th International Power Electronics, Drive Systems and Technologies Conference (PEDSTC2023)</p>	
54	<p>A High-Voltage Gain DC/DC Resonant SC Converter for High-Power and Wide Input Voltage and Load Variation Ranges Applications Sajad AfsharZarandi and R. Beiranvand 14th International Power Electronics, Drive Systems and Technologies Conference (PEDSTC2023)</p>	
53	<p>Small-Signal Modeling of a Resonant SCC for PWM, Phase-Shifted and Frequency Modulation Control Approaches Sajad AfsharZarandi and R. Beiranvand 14th International Power Electronics, Drive Systems and Technologies Conference (PEDSTC2023)</p>	
52	<p>An Extendable Voltage Multiplier Based Multi-Input DC/DC Converter with Soft-Switching Operation</p>	

No.	Title	Year
	Koosha Choobdari Omran and R. Beiranvand 14 th International Power Electronics, Drive Systems and Technologies Conference (PEDSTC2023)	
51	A Bidirectional Transformerless Direct Ac-Ac Converter for Improved Power Quality Seyed Mohsen Mortazavi and R. Beiranvand 14 th International Power Electronics, Drive Systems and Technologies Conference (PEDSTC2023)	
50	An AC-AC High-Frequency Isolated Series Regulator with Up/Down Capability for Utility Voltage Compensation Seyed Mohsen Mortazavi and R. Beiranvand 14 th International Power Electronics, Drive Systems and Technologies Conference (PEDSTC2023)	
49	A Novel Approach for Improving the LCC Resonant Converter Efficiency Over Wide Load Variation Ranges Jasem Shahsevani and R. Beiranvand 14 th International Power Electronics, Drive Systems and Technologies Conference (PEDSTC2023)	
48	Using a High frequency LC Resonant Inverter for Ultrasonic Cleaning Applications Zahra Asemi and R. Beiranvand 14 th International Power Electronics, Drive Systems and Technologies Conference (PEDSTC2023)	
47	A Bidirectional CLLC Resonant Converter for EV Battery Charger Applications Reza Takarli, Mohammadreza Adib, Abolfazl Vahedi, and R. Beiranvand 14 th International Power Electronics, Drive Systems and Technologies Conference (PEDSTC2023)	
46	A Multiphase High Step-Up Interleaved Boost Converter with Voltage Multiplier and Active Clamp Circuits AmirHasan Babanezhad and R. Beiranvand 13 th International Power Electronics, Drive Systems and Technologies Conference (PEDSTC2022)	
45	A Transformerless Switched-Capacitor Converter Applicable for Photovoltaic Systems S. Hasani and R. Beiranvand 13 th International Power Electronics, Drive Systems and Technologies Conference (PEDSTC2022)	2022
44	A Novel Analysis of the Wireless Battery Chargers For Electrical Vehicle Applications with Variable Coupling Coefficient P Zandi and R. Beiranvand 13 th International Power Electronics, Drive Systems and Technologies Conference (PEDSTC2022)	
43	Design and Simulation of an Interleaved Soft-Switched CW-VM Based Boost Converter for High-Power and High-Voltage Applications S. Hasani and R. Beiranvand 29 th International Conference on Electrical Engineering (ICEE2021)	2021

No.	Title	Year
42	<p>A New Gradient Driver with a Single DC Voltage Source for Using in MRI Systems A. Naghipour Shahrabaki and R. Beiranvand 29th International Conference on Electrical Engineering (ICEE2021)</p>	
41	<p>A Novel Step up Converter Based on an Active Network and Coupled Inductors with Soft Switching Capability M. R. Zeynalhosseyni and R. Beiranvand 29th International Conference on Electrical Engineering (ICEE2021)</p>	
40	<p>Three-Winding Coupled-Inductor-based Boost Converter with Voltage Multiplier Cell and Active Clamp Circuit for Low-Power Photovoltaics Application D. Amani, A. Valizadeh, R. Beiranvand, and A. Yazdian 29th International Conference on Electrical Engineering (ICEE2021)</p>	
39	<p>A Three-Winding Coupled-Inductor High Step-Up Boost Converter with an Active-Clamp Circuit D. Amani, R. Beiranvand, and M. R. Zolghadri 12th International Power Electronics, Drive Systems and Technologies Conference (PEDSTC2021)</p>	
38	<p>A New High Step-Up Interleaved LLC Converter D. Amani, R. Beiranvand, and M. R. Zolghadri 12th International Power Electronics, Drive Systems and Technologies Conference (PEDSTC2021)</p>	
37	<p>A Comprehensive Analysis and Modeling of the Bidirectional Three-Level DC-DC Converter with Auxiliary Control Scheme for Balancing Voltages of Its Capacitors M. Aldin Parazdeh, Z. Barzanouni, M. Eldoromi, A.A. Moti Birjandi, and R. Beiranvand 12th International Power Electronics, Drive Systems and Technologies Conference (PEDSTC2021)</p>	
36	<p>CCM Operation of a Single-Stage Boost-Flyback Converter with Active-Clamp for LED Driver Applications M. J. Esfandani, M. Feizi, and R. Beiranvand 11th International Power Electronics, Drive Systems and Technologies Conference (PEDSTC2020)</p>	
35	<p>An Improved Phase-Shifted Full-Bridge Converter with Extended ZVS Operation Range for EV Battery Charger Applications M. Feizi and R. Beiranvand 11th International Power Electronics, Drive Systems and Technologies Conference (PEDSTC2020)</p>	2020
34	<p>Simulation of a High Power Self-Equalized Battery Charger Using Voltage Multiplier and Phase-Shifted Full Bridge Converter for Lithium-Ion Batteries M. Feizi and R. Beiranvand 11th International Power Electronics, Drive Systems and Technologies Conference (PEDSTC2020)</p>	
33	<p>Analysis of a High Step-Up “Improved -Z-Source” DC-DC Converter A. Nafari and R. Beiranvand</p>	

No.	Title	Year
	11 th International Power Electronics, Drive Systems and Technologies Conference (PEDSTC2020)	
32	Analysis of a Bridgeless Single Stage PFC based on LLC Resonant Converter for Regulating Output Voltage R. Beiranvand , S. Salehirad, and S. Esmailirad 31 st International Conference on Microelectronics (MIEL2019), 353-356	2019
31	Simulation of a Multi-Level Resonant Flying-Capacitor Converter above Resonant Frequency to Overcome Its Voltage Regulation Issue S. S. Hashemi, A. Salehian, R. Beiranvand , and A. Yazdian 10 th International Power Electronics, Drive Systems and Technologies Conference (PEDSTC2019)	
30	Simulation of a Step-up Resonant Switched-Capacitor Converter under the CCM Operation Mode A. Salehian, S. S. Hashemi, R. Beiranvand , and A. Yazdian 10 th International Power Electronics, Drive Systems and Technologies Conference (PEDSTC2019)	
29	An Interleaved Diode-Capacitor High Step-Up Quasi-Resonant DC-DC Converter Featuring Soft-Switching Characteristic S. Kavehei, A. Y. Varjani, R. Beiranvand , and M Zare 10 th International Power Electronics, Drive Systems and Technologies Conference (PEDSTC2019)	
28	A High Step-Up DC/DC Switched-Capacitor Converter with Soft Switching and Regulated Output Voltage P Doaee and R. Beiranvand 10 th International Power Electronics, Drive Systems and Technologies Conference (PEDSTC2019)	
27	High step-up trans-inverse(Tx-1) DC-DC converter with an active clamp and soft switching characteristics M. Daneshfar, M. Mohamadian, and R. Beiranvand 9 th Power Electronics and Drive Systems Technologies Conference (PEDSTC2018)	
26	Using the frequency and pulse width modulation techniques for regulating the LLC resonant converter output voltage S. Esmailirad, R. Beiranvand , and A. Yazdian Varjani 9 th Power Electronics and Drive Systems Technologies Conference (PEDSTC2018)	
25	Overcoming partial shading issue of PV modules by using a resonant switched capacitor converter R. Rezaii, M. H. Ameri, A. Yazdian Varjani, and R. Beiranvand 9 th Power Electronics and Drive Systems Technologies Conference (PEDSTC2018)	
24	Analysis of the boost converter under the DCM condition to reduce the MIC volume to mitigate partial shading effects in PV arrays R. Rezaii, M. A. Abolhasani, A. Yazdian Varjani, and R. Beiranvand 7 th Power Electronics and Drive Systems Technologies Conference (PEDSTC2016)	2016

No.	Title	Year
23	A comparison between buck and boost topologies as module integrated converters to mitigate partial shading effects on PV arrays M. A. Abolhasani, R. Rezaii, R. Beiranvand , and A. Yazdian Varjani 7 th Power Electronics and Drive Systems Technologies Conference (PEDSTC2016)	
22	A high step-up switched-capacitor converter with zero current switching technique for using in solar system applications S. M. Mousavi, R. Rezaii, R. Beiranvand , and A. Yazdian Varjani 7 th Power Electronics and Drive Systems Technologies Conference (PEDSTC2016)	
21	Designing and implementing of a novel resonant switched-capacitor converter for improving balancing speed of lithium-ion battery cells S. Goodarzi, R. Beiranvand , R. Rezaii, M. A. Abolhasani, and M. Mohamadian 7 th Power Electronics and Drive Systems Technologies Conference (PEDSTC2016)	
20	New Strategy of Grid Connected Photovoltaic System Using Module Integrated Converters with B4 Inverter to Overcome Partial Shading Effect R. Rezaii, M. A. Abolhasani, A. Yazdian Varjani, and R. Beiranvand 30th Power System Conference - 2015 Tehran, Iran, 1-6	
19	Switched-Capacitor Micro-Inverter for Connecting PV to Single Phase Power Grid M. Hadi Zare, M. Mohamadian, and R. Beiranvand 2 nd International Conference and Exhibition on Solar Energy (ICESE2015)	
18	Optimization the LLC resonant converter for achieving maximum efficiency at a predetermined load value M. Jami, R. Beiranvand , M. Mohamadian, and M Ghasemi 6 th Power Electronics, Drives Systems & Technologies Conference (PEDSTC2015)	
17	High efficiency, low size, and low weight vehicle battery charger A Golahmar-Zavare, M Mohamadian, and R. Beiranvand 6 th Power Electronics, Drives Systems & Technologies Conference (PEDSTC2015)	
16	A new algorithm for increasing balancing speed of switched-capacitor lithium-ion battery cell equalizers S. Goodarzi, R. Beiranvand , S. M. Mousavi, and M. Mohamadian 6 th Power Electronics, Drives Systems & Technologies Conference (PEDSTC2015)	2015
15	Analyzing a bridgeless single stage LLC resonant PFC converter controlled by frequency and pulse width modulations techniques M. Ghasemi, R. Beiranvand , and M Jami 6 th Power Electronics, Drives Systems & Technologies Conference (PEDSTC2015)	
14	A novel switching pattern for switching loss reduction of an IPT-based single to three-phase cycloconverter S Sahraneshin, MH Ameri, A Yazdian Varjani, and R. Beiranvand 6 th Power Electronics, Drives Systems & Technologies Conference (PEDSTC2015), 281 - 286	
13	Designing A 48 V to 24 V DC-DC converter for vehicle application using a resonant switched capacitor converter topology S. M. Mousavi, R. Beiranvand , S. Goodarzi, and M. Mohamadian	

No.	Title	Year
	6 th Power Electronics, Drives Systems & Technologies Conference (PEDSTC2105), 263 - 268	
12	Optimizing the LLC Resonant Converter to Achieve Maximum Efficiency for a Desired Load (printed in Persian) M. Jami, R. Beiranvand , M Mohamadian, M. Ghasemi, and M. Mohammadi 6 th Iranian Conference on Electrical & Electronics Engineering (ICEEE2014) 19-21 Aug. Iran	2014
11	Design and Simulation of an Optimum PV Water Pumping System by Using a High Step-up dc-dc Converter (printed in Persian) S khoshnoud, M Mohamadian, R. Beiranvand , and A Golahmar Zavarei 4 th Annual Clean Energy Conference (ACEC2014), Jan. 25-26, Iran	
10	Designing a Single Stage PFC Converter Based on the LLC Resonant Converter (printed in Persian) M. Ghasemi, R. Beiranvand , A Yazdian Varjani, and M. Jami 4 th Annual Clean Energy Conference (ACEC2014), Jan. 25-26, Iran	
9	SEPIC Converter with Power Factor Correction for Designing Electric Vehicle On-board Battery Charger (printed in Persian) A Golahmar Zavarei, M Mohamadian, R. Beiranvand , and S khoshnoud 4 th Annual Clean Energy Conference (ACEC2014), Jan. 25-26, Iran	
8	Pulse Width and Frequency Modulations for Controlling the LLC Resonant Converter for Using in Photovoltaic and Battery Charger Applications (printed in Persian) M. Ghasemi, R. Beiranvand , A Yazdian Varjani, and M. Jami 4 th Annual Clean Energy Conference (ACEC2014), Jan. 25-26, Iran	
7	Analyzing the LLC Resonant Converter by Considering the Parasitic Components for High Frequency Applications (printed in Persian) M. Jami, R. Beiranvand , and M Mohamadian 6 th Iranian Conference on Electrical & Electronics Engineering (ICEEE2014) 19-21 Aug. Iran	
6	Using Battery-Super Capacitor Energy Storage Hybrid System in a 30 kVA Uninterruptable Power Supply (printed in Persian) T. Parnian, M Mohamadian, and R. Beiranvand 28 th International Power System Conference 4-6 Nov. Tehran-Iran	
5	Dual-input single-output DC-DC-AC converter M Azizi, M Mohamadian, R. Beiranvand , and A. H. Rajaei 4 th Power Electronics, Drive Systems and Technologies Conference (PEDSTC2013)	
4	A novel zero-voltage-transition bridgeless PFC with reduced conduction losses R Haghi, MR Zolghadri, and R. Beiranvand 2 nd Power Electronics, Drive Systems and Technologies Conference (PEDSTC2011)	2011
3	Wide adjustable range LLC resonant converter's maximum switching frequency for realizing the ZVS operation R. Beiranvand , B Rashidian, MR Zolghadri, and SMH Alavi 18 th Iranian Conference on Electrical Engineering (ICEE2010), 745-752, 2010	2010

No.	Title	Year
2	Design and Implementing the PFC Stage of the Ion Implanter Filament and Arc Power Supplies (printed in Persian) R. Beiranvand , B Rashidian, MR Zolghadri, and SMH Alavi 17 th Iranian Conference on Electrical Engineering (ICEE2009), 25-32, 2009	2009
1	Design and Implementing of a 1 kW, 48 V to 220 V Sinusoidal 50 Hz Inverter by Using SPWM and UPWM Techniques (printed in Persian) R. Beiranvand and SMH Alavi 8 th Iranian Conference on Electrical Engineering (ICEE2000), 432-438	2000

4) PH.D. STUDENTS THESES:

4-a) Supervisor

No.	Title	Year
4	A New High Voltage Gain Resonant DC-DC Converter Mahdi Daneshfar and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, 2025	2025
3	A High Step-Up DC/DC Converter with Soft-Switching Operation for High-Power and High-Voltage Applications Koosha Choobdari Omran and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, 2024	2024
2	New Structures of AC-AC Converters as a Controller of the Output Voltage Level S. Mohsen Mortazavi and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, May 2023	2023
1	A Fault Tolerant Q-ZSI Three Phase Inverter for Bypassing Semiconductor Fault Rasoul Haghi, R. Beiranvand and M. Shahbazi Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, October 2022	2022

4-b) Advisor

No.	Title	Year
2	Introducing a New Family of Partial Resonance Bi-Directional Ac Link Inverters with Soft Switching Operation for Connecting to Utility Grid Mohamad Hadi Zare Jamalabadi, M. Mohamadian, and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, Winter 2017	2017

No.	Title	Year
1	<p>Design and Implementation of a New Family of Converters with Multiple DC Input and Single Output</p> <p>Mahdi Azizi, M. Mohamadian, and R. Beiranvand</p> <p>Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, Spring 2016</p>	2016

5) MASTER STUDENTS THESES:

5-a) Supervisor

No.	Title	Year
35	<p>Design and Implementation of a Step-Down Resonant Switched-Capacitor Converter with Exponential Conversion Ratio for High-Power Applications</p> <p>Mahdi Mohammadi Vandishi and R. Beiranvand</p> <p>Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, ?- 2023</p>	2023
34	<p>Design and Implementation of a Resonant Converter for Wireless Power Transferring by Using Capacitive Coupling Technique for Electric Vehicles Applications</p> <p>Jasem Shahsevani and R. Beiranvand</p> <p>Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, ?- 2023</p>	
33	<p>Design and Implementation of a Resonant Switched-Capacitor Converter for Balancing the Batteries and Supercapacitors Cells Voltages for Electric Vehicle Applications</p> <p>Yasin Izadi and R. Beiranvand</p> <p>Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, ?- 2023</p>	
32	<p>Design and Implementation of a Variable Inductor Based Bidirectional DC-DC Converter for Electric Vehicles</p> <p>Zeinab Barzanouni and R. Beiranvand</p> <p>Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, ?- 2023</p>	
31	<p>Design and Implementation of a Developed Converter Based on the Impedance Network and the Interleaved Technique</p> <p>Sakineh Bakhshi and R. Beiranvand</p> <p>Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, February 2023</p>	
30	<p>Design and implementation of a Wireless Power Transfer (WPT) Based Battery Charger</p> <p>Pouria Zandi and R. Beiranvand</p> <p>Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, January 2023</p>	
29	<p>Design, Modeling, Control, and Implementation of a Novel Resonant Switched-Capacitor Converter</p> <p>Sajad Afshar Zarandi and R. Beiranvand</p>	

No.	Title	Year
	Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, December 2022	
28	<p>Design and Implementation of a Novel Converter Based on a Current-Fed Converter and a Voltage Multiplier Circuit Amir Hassan Babanezhad Kafshgar and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, November 2022</p>	
27	<p>Design and Implementation of a Resonant Inverter for Ultrasonic Applications Zahra Asemi Zavareh and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, November 2022</p>	
26	<p>Design and Implementation of a Novel MRI Gradient Driver Amirabbas Naghipour and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, February 2022</p>	
25	<p>Design and Implementation of an Interleaved Boost Converter with High Voltage Gain and Soft Switching Characteristics Danesh Amani, R. Beiranvand, and M. R. Zolghadri Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, December 2021</p>	
24	<p>Design and Implementation of a Non-Isolated Step-Up Converter Based on the Resonant Switched-Capacitor Converters Parsa Behzad Nazif and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, September 2021</p>	2021
23	<p>Design and Implementation of a Coupled Inductor Based Step Up Converter with High Voltage Gain and Soft Switching Capability Seyed Mohammad Raza Zeinal Al-Hosseini and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, September 2021</p>	
22	<p>Design and Implementation of a Low Power IPT-Based Battery Charger Aliasghar Parizan and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, January 2021</p>	
21	<p>A Quasi-Z-Source Based High Step-Up DC-DC Converter by Using a Voltage Quadruple Circuit Arash Nafari and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, August 2020</p>	2020
20	<p>Design, Simulation, and Implementation of a Switched-Capacitor Converter with Soft Switching Characteristics for High-Voltage High-Power Applications Soheil Hasani Sangani and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, June 2020</p>	

No.	Title	Year
19	<p>Design and Implementation of a Self-Balanced Battery Charger for Lithium-Ion Batteries Mohsen Feizi and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, February 2020</p>	
18	<p>Design and Implement an LED Driver with Power Factor Correction and Soft Switching Capability Mohammad Janbeygloo Esfandani and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, October, 2019</p>	
17	<p>Design and Implementation of a Series Resonant Converter for Voltage Balancing of the Series Connected Lithium-Ion Batteries Saeed Gasemzadeh, R. Beiranvand, and A. Yazdian Varjani Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, Fall 2019</p>	
16	<p>Design and Implementation of a Three-Phase Power Factor Correction Converter Based on Switch-Capacitor Structure with Zero Voltage Switching Feature Mustafa Dehqhani and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, Sep. 2019</p>	
15	<p>Design and Analysis of a Step-Down Switched-Capacitor Converter with Soft Switching and Regulated Output Voltage Capabilities Mahdi Beheshti, R. Beiranvand, and A. Yazdian Varjani Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, Winter 2019</p>	2019
14	<p>Design and implementation of a Single Stage Bridgeless Power Factor Correction Converter Based on the LLC Resonant Converter under the CCM Condition Kavoos Aeinjamshid, R. Beiranvand, and A. Yazdian Varjani Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, January 2019</p>	
13	<p>Design and Implementation of a High Step-Up Transformer Less Switched-Capacitor DC/DC Converter with Soft Switching and Regulated Output Voltage Capabilities Parisa Doaee and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, Winter, 2019</p>	
12	<p>Analyzing and Implementing a High Step-Up Resonant Switched-Capacitor Converter under the CCM Condition to Overcome Voltage Regulation Problem Atefeh Salehian, R. Beiranvand, and A. Yazdian Varjani Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, Feb. 2018</p>	
11	<p>Analyzing and Implementing a Multilevel dc/dc Flying Capacitor Converter above its Resonant Frequency under the CCM Operation Mode S. Saeed Hashemi, R. Beiranvand, and A. Yazdian Varjani Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, Feb. 2018</p>	2018

No.	Title	Year
10	<p>Design and Implementation of a High Voltage Gain Multi-Input Converter with Soft Switching Characteristics Hassan Shokor, R. Beiranvand, and M. Mohamadian Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, Autumn 2017</p>	2017
9	<p>Modeling and Implementing of a Single Stage PFC Based on the LLC Resonant Converter Amir Mazadeh, R. Beiranvand, and M. Mohamadian Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, May. 2017</p>	
8	<p>Implementation and Analysis of the Energy Storage System of the Elevator with Bidirectional DC-DC Converter and Super capacitors with Balancing Voltage Circuit Arash Rashidi Moghaddam, R. Beiranvand, and M. Mohamadian Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, Winter. 2017</p>	
7	<p>Optimization and Implementation of a Single Stage PFC Based on the LLC Resonant Converter Sadeqh Esmailirad, R. Beiranvand, and A. Yazdian Varjani Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, Jan. 2017</p>	
6	<p>Design and Implementation of a Module Integrated Converter to Mitigate the Partial Shading Effects on Photovoltaic Arrays with Zero Voltage Switching Mohammad Amin Abolhasani, R. Beiranvand, and A. Yazdian Varjani Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, Nov. 2015</p>	
5	<p>Design and Implementation of a Switched-Capacitor Converter for using in Electrical Vehicle Application Seyed Mohammad Mousavi, R. Beiranvand, and M. Mohamadian Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, Nov. 2015</p>	
4	<p>Implementation and Analyzing the Voltage Balancing Circuit of the Series Rechargeable Batteries Cells Shahin Goodarzi, R. Beiranvand, and M. Mohamadian Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, Sep. 2015</p>	
3	<p>Improving the LLC Resonant Converter Performances Under the Light and no Load Conditions Masoud Mohammadi, R. Beiranvand, and M. Mohamadian Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, Feb. 2014</p>	2014
2	<p>Designing a Single Stage LLC Resonant Converter for Using in LED/LCD TV Applications Mahdi Ghasemi, R. Beiranvand, and A Yazdian Varjani Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, Nov. 2014</p>	
1	<p>State-Space Analysis of the LLC Resonant Converter for High Frequency Applications Mehran Jami, R. Beiranvand, and M Mohamadian</p>	

No.	Title	Year
	Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, Summer, 2014	

5-b) Advisor

No.	Title	Year
13	Design and Implementation of a Non-Isolated High Step-Up DC-DC Converter Featuring Soft Switching Characteristic Saeed Kavehei, A Yazdian Varjani, and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, Dec. 2018	2018
12	Design and Implementation of a Z-Source Boost Converter Featuring Soft Switching Characteristic Reza Kamalzadeh, A Yazdian Varjani, and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, 2018.	
11	Design and Implementation of High Step-up Trans-Inverse DC-DC converter and proposing a new converter Mahdi Daneshfar, M Mohamadian, and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, Sep. 2107.	2017
10	Design and Implementation of Dual-input Three-Level DC-DC Converters Abbas Hassan, A Yazdian Varjani, and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, Fall 2017.	
9	Implementation and Analysis of a Bidirectional DC-DC Converter to Store Energy in Micro Grid Hemn Mohammadi, M Mohamadian, and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, Winter 2017.	
8	Design and construction of LED driver for lighting application Mohammad Pourfathollah, A Yazdian Varjani, and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, Winter 2016	2016
7	Implementation and Analyzing a Photovoltaic System Based on the Micro Inverters to Supply a Single Load for Reducing the Partial Shading Effect Reza Rezaii, A Yazdian Varjani, and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, Autumn 2015	2015
6	Design and Implementation of Control Electronic Platform for NPC Multilevel UPS Based on Hybrid DSP-FPGA Architecture Reza Kheirollahi, M Mohamadian, and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, Dec. 2015	

No.	Title	Year
5	<p>Design, Optimization and Implementation of a High Power Factor Electronic Ballast with Luminance Control without Dimmer Omid Honarfar, A Yazdian Varjani, and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, Summer 2015</p>	
4	<p>Design and Implementation of an Optimum PV Water Pumping System Sajjad khoshnoud, M Mohamadian, and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, Nov. 2014</p>	2014
3	<p>Design and Implementation of a Converter for Optimizing the Vehicle Battery Charger Alireza Golahmar Zavarel, M Mohamadian, and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, Nov. 2014</p>	
2	<p>Hybrid Battery – Super Capacitor Energy Storage System for a Uninterruptible Power Supply Toofan Parnian, M Mohamadian, and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, March 2014</p>	
1	<p>IPT-Based Single to Multi-Phase AC/AC Frequency Converters Sohrab Sahraneshin Samani, A Yazdian Varjani, and R. Beiranvand Faculty of Electrical and Computer Engineering (ECE), Tarbiat Modares University, Sep. 2013</p>	2013